posterior margin on each side of segments two and three, situated a short distance in from the lateral bands and extending far beyond the end of the body; others very small, occupying similar positions on segments four and five; these appear to be the only dorsal hairs. Genitalia with long, slender external appendages, not heavily chitinized.

	Measurements: ♂, length 1.000 mm.	Width
Head	.246	.344
Prothroax	.100	.278
Metathroax	.196	.360
Abdomen	.623	.754

NOTES ON THE DURATION OF THE PUPAL STAGE IN CERTAIN LEPIDOPTERA.

By Phil Rau.
St. Louis, Mo.

1. Grapta interrogationes Fab.

The larvæ of this insect were observed upon their food-plant, the hop vine, from the time of pupation to the time of emergence as adults, covering the period from August 28 to September 21, 1910. The duration of the pupal period was as follows:

Days.	No. of insects.
9	1
10	6
11	2
12	0
13	2

We see that in these eleven individuals this period varied from 9 to 13 days, in most of them 10 days. Mr. W. H. Edwards[1] finds that the duration of the pupal stage at Coalburgh, West Va., is from 7 to 11 days, a little shorter than at St. Louis.

2. Samia cecropia Linn.

The notes on three insects of this species are as follows:

Sex.	Date of pupating.	Date of Emerging.	Duration.
♂	7/20/'10	6/3/'11	318 Days.
♀	7/27/'10	6/5/'11	313 "
♀	7/15/'11	6/4/'12	324 "

[1] Can. Ent. Vol. XV. p. 204.

The cocoons were on trees, exposed to the natural weather conditions of St. Louis during the winter .

3. Telea polyphemus Cramer.

Four larvæ of this species taken in the woods spun their cocoons within three or four days after being caged, and emerged as follows:

Sex.	Pupated.	Emerged.	Duration.
♂	9/19/'10	5/12/'11	235 Days.
♀	9/22/'10	5/13/'11	233 "
♂	9/23/'10	5/16/'11	235 "
♂	9/27/'10	5/11/'11	226 "

At first glance the figures above seem to show that the insects emerged in the order in which they pupated, but in the fourth instance we see that the individual which was the last to pupate emerged as an adult before any of the others.

It would be of interest to record similar data from year to year from one or more localities, in an attempt to discover the causes underlying any variation in the duration of the pupal period, and to discover if the pupal duration is in any way correlated with the longevity of the imago. We have found in connection with other work that the pupal period of the Cecropia moth varied greatly under changed conditions of temperature and moisture.

St. Louis, Feb. 21, 1913.

NOTES ON VARIATION IN THE VENATION OF THE SPECIES OF THE GENUS LEPTOGASTER.

By Charles W. Johnson.

Boston Society of Natural History, Boston, Mass.

In The Entomologist for July, 1913, vol. 46, p. 213, under the title "A Fossil Asilid Fly from Colorado," Prof. T. D. A. Cockerell proposes *Tipulogaster* "a new subgenus (or genus?)" for the recent *Leptogaster badius* Loew, based on the following characters: "The anal cell is narrowed apically as in *L. hellii* but the second posterior cell is no more produced basally than in *Cophura*. This also has the second submarginal cell shorter than in the typical *Leptogaster*. while the distance between its base and the anterior